

Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 73142 Entry Year 2019 Acreage: 2,574 County losco

Management Area: Gladwin Lake Plain

Revision Date: 2017-06-12

Stand Examiner: Steve Nyhoff

Legal Description:

T21N R05E, Sections 12, 13

T21N R06W, Sections 07-10 and 15-18

Identified Planning Goals:

Vegetation management in the Gladwin Lake Plain management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Rifle River, a designated natural river; the Lame Duck Foot Access Area, a high conservation value area; several wildlife area floodings; threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year planning period will focus on balancing the age-class distributions for aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunities. Expected trends in this 10-year planning period will be the continued need to address illegal off-road vehicle use, trash dumping and increased recreational pressure.

The western 2/3 of the compartment is heavy to aspen. It has been managed for early successional ecosystems. The western 1/3 is heavier to white pines and latter successional species mixes. This is mainly because of the soils and access difficulties. This area should be managed for later successional ecosystems, especially along the Au Gres River.

Soil and topography:

The terrain in general is flat to slightly rolling. Along Kitchen Road the terrain is bisected north and south by numerous narrow ridges and drains. The only other variance from the generally flat terrain is along the Au Gres River, Mongo, Johnson, and Elm Creeks. These waterways have nearly flat flood plains bordered by steep slopes.

The soils in the compartment are mainly Au Gres-Deford Complex, which is somewhat poorly to poorly drained sand to mucky sand; Au Gres sand, which is somewhat poorly drained; Croswell sand, which is moderately well drained; and Rubicon sand, which is excessively drained.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The state land is scattered over 11 sections and it is mainly in larger blocks of state ownership intermixed with private land holdings. Most of the State Land is accessible from the county roads. However, in sections 13 and 24 there are sections of State Land that are land locked by private land. In addition, the State Land in sections 9, 10, 15, and 16 are difficult to access because of the soils.

In NW ¼ of section 7, there is 12 acres of state land, which is leased to the state police for a radio tower.

The private land in the area is mainly used for permanent residences. Most of the private parcels are in holdings of 20-80 acres.

Unique Natural Features:

There are no recorded occurrences of endangered/threatened species in the MNFI Database and none were located during the inventory process. However, the land west of Kitchen Road is in the Eastern Massasauga Managed Land.

Archeological, Historical, and Cultural Features:

The compartment has an old railroad grade in sections 7, 8 and 12. There are also footings for an old bridge in the compartment as well.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

The Au Gres River, Mongo, Johnson, and Elm Creeks are in and near the compartment. There are several drainages that flow through the compartment. The soils in the drains are mainly Tawas Muck and the trees in these soils are easily tipped.

Because of the Emerald Ash Borer, parts of the Au Gres River are now lacking thermal cover as the ash has died off. This has converted some of these stands to non-forested types.

Wildlife Habitat Considerations:

Wildlife Habitat Considerations: Compartment #142 contains a variety of vegetative types from both upland and lowland systems, making it suitable for a number of wildlife species. Game species likely to be present in this compartment include snowshoe hare, raccoon, coyote, wild turkey, ruffed grouse, American woodcock and white-tailed deer. Many bird species stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include pileated woodpecker, red-headed woodpecker, gray catbird, redeyed vireo, white-throated sparrow, hermit thrush, red-breasted nuthatch and golden-winged warbler. The compartment is easily accessible to hunters via Whittemore Road.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand, gravel, and an end moraine of fine-textured glacial till. Glacial drift thickness varies between 10 and 200 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum just to the southeast. Gravel pits are in Section 11 and potential appears to be good on the upland areas. Exploration for oil and gas is sparse in this area. Prairie du Chien (PdC) fields have been found to the west and east of the compartment. The compartment is partially leased and held by production by the PdC wells to the

Vehicle Access:

The compartment has several county roads running through it. Most of the logging trails off them have been closed, so access with vehicles is minimal in most of the compartment except in section 12. This area has several two-tracks. Some of them are used by the public to access their properties.

Survey Needs:

The State Land along Kitchen and Sand Lake Road have been heavily resurveyed and most of the section corners are in.

Recreational Facilities and Opportunities:

There are no established recreational facilities in the compartment. However, the area is heavily hunted and the Au Gres River is heavily fished.

Fire Protection:

The cover types, soil wetness, and the natural fuel breaks makes the fire danger low to moderate in this compartment.

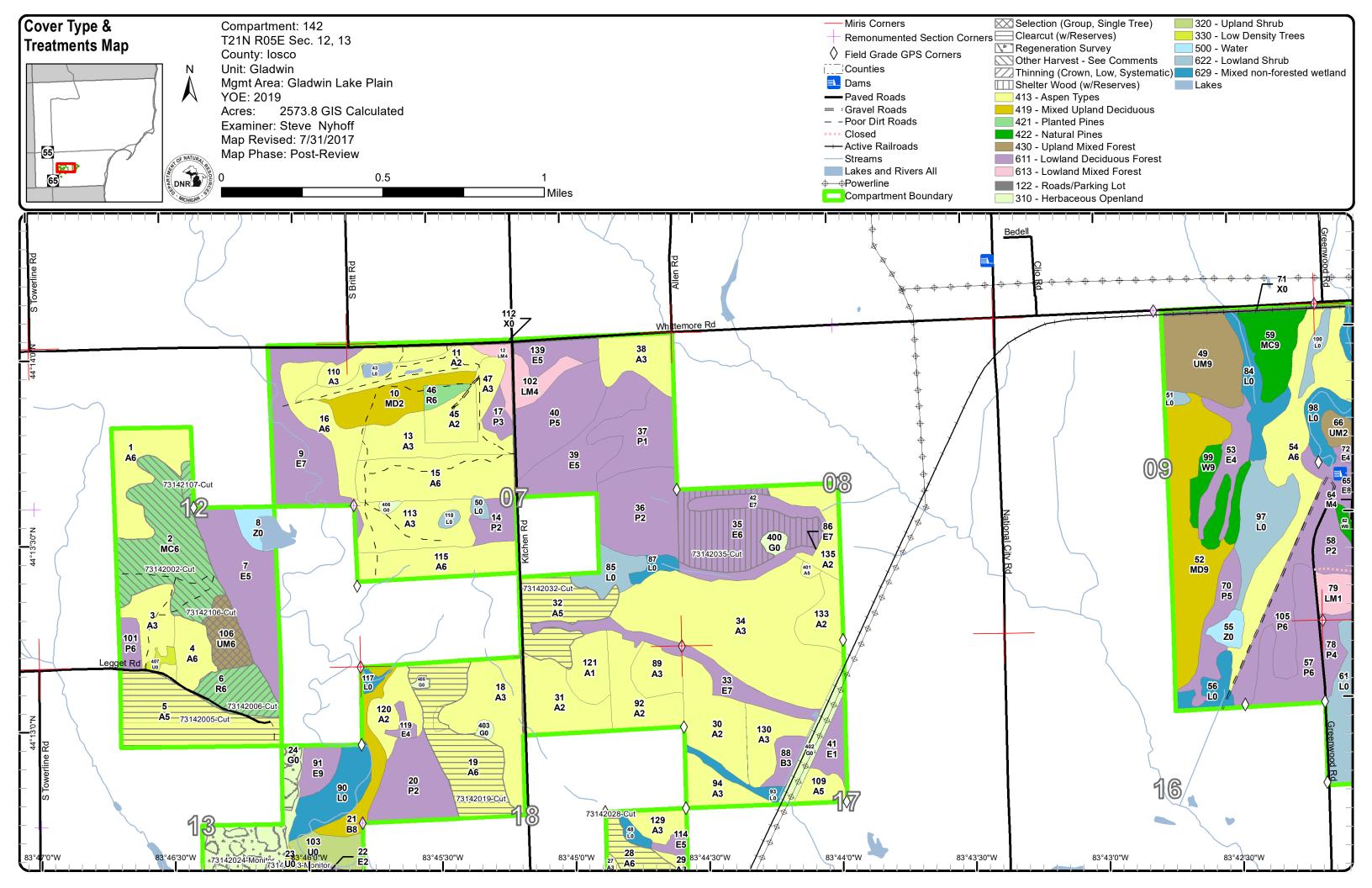
Additional Compartment Information:

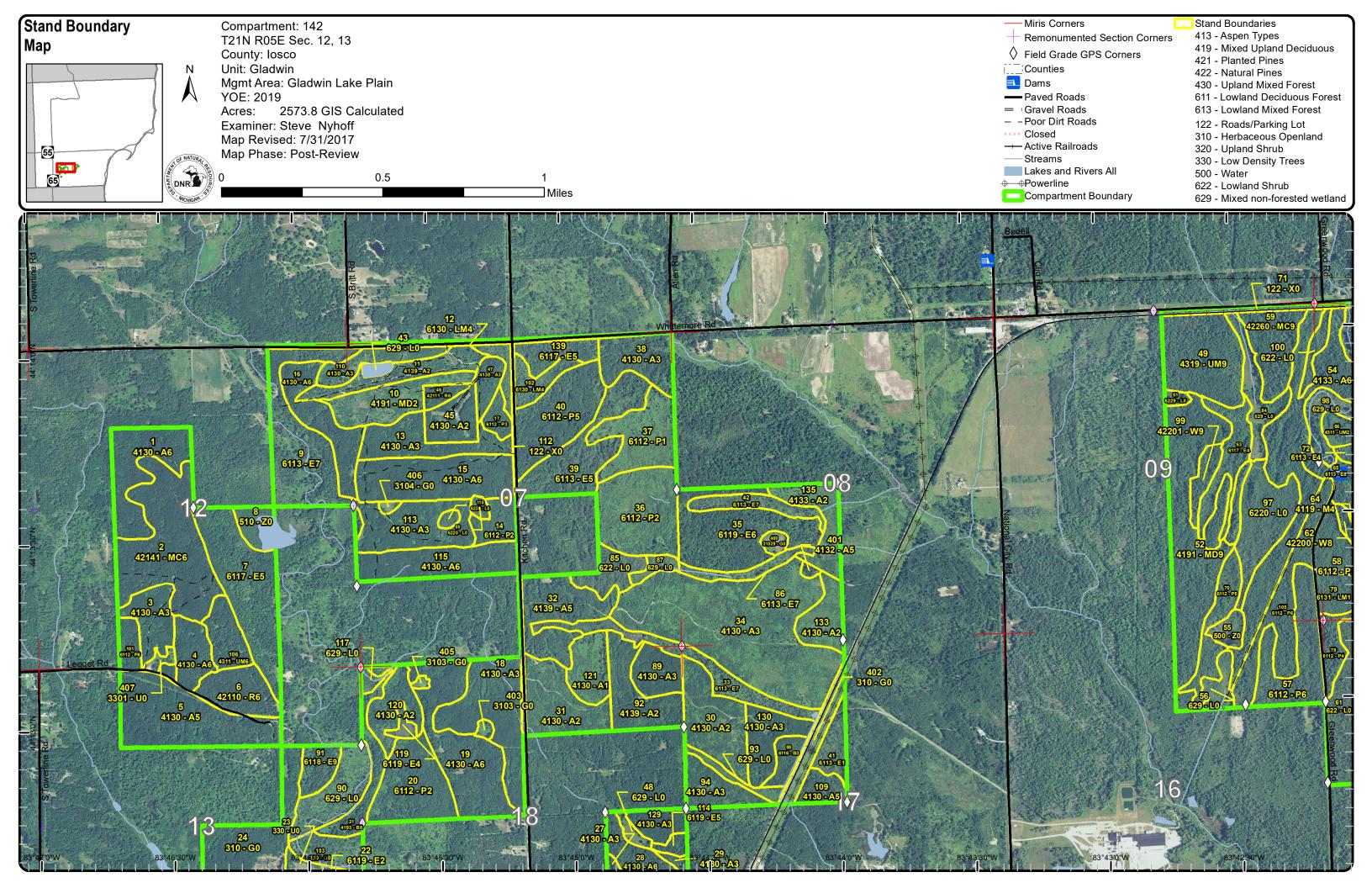
The following reports from the Inventory are attached:

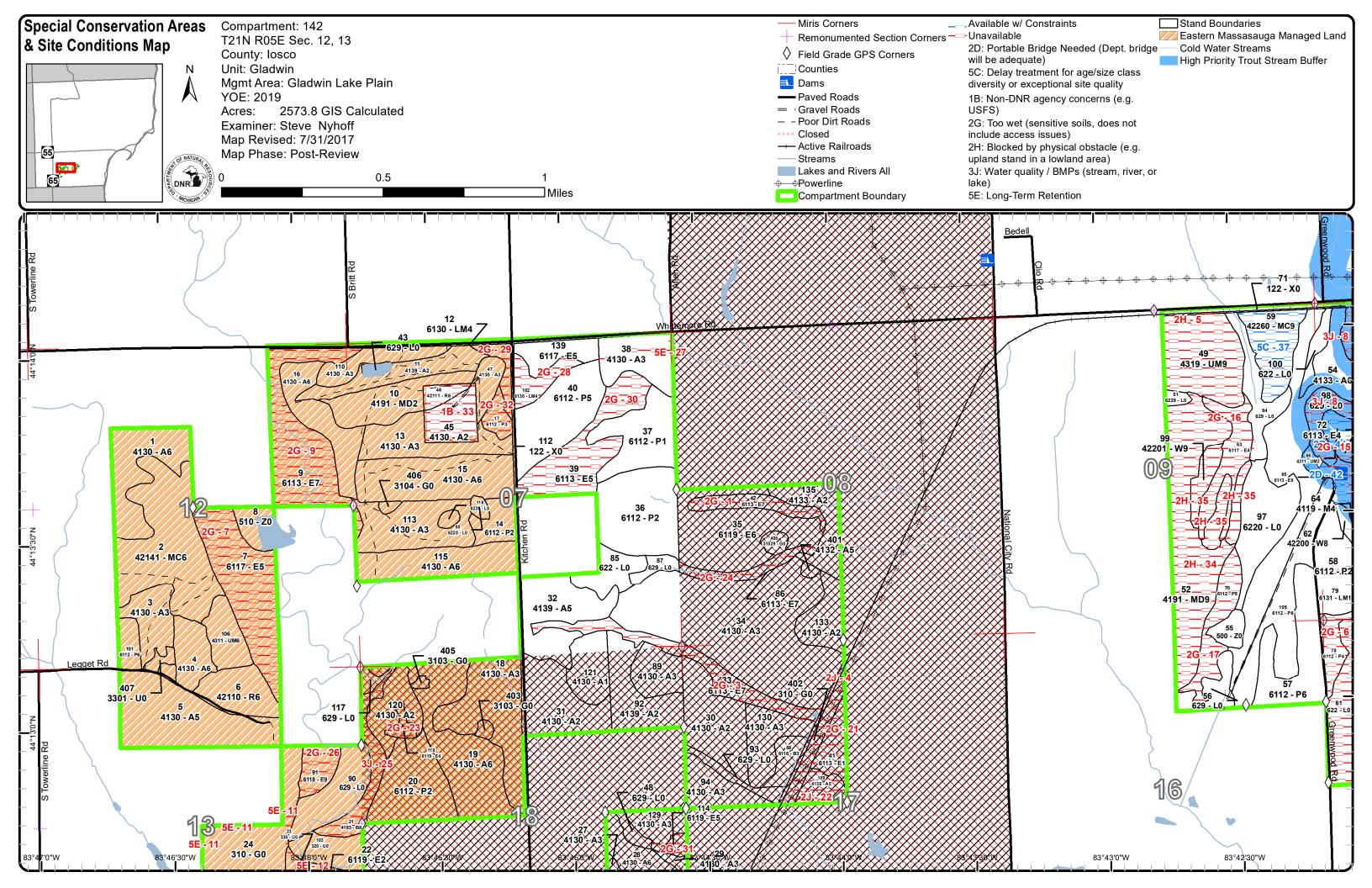
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

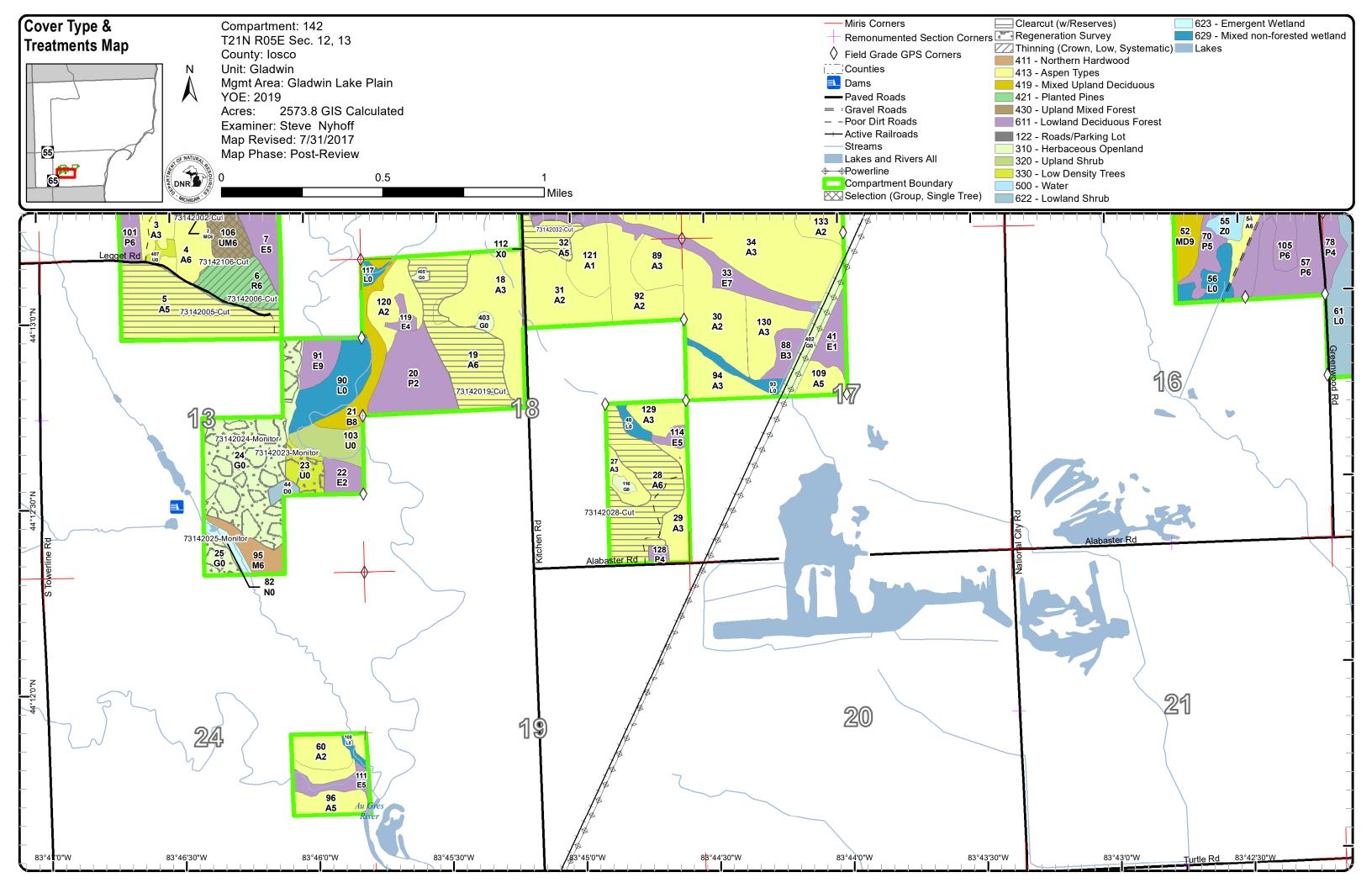
The following information is displayed, where pertinent, on the attached compartment maps:

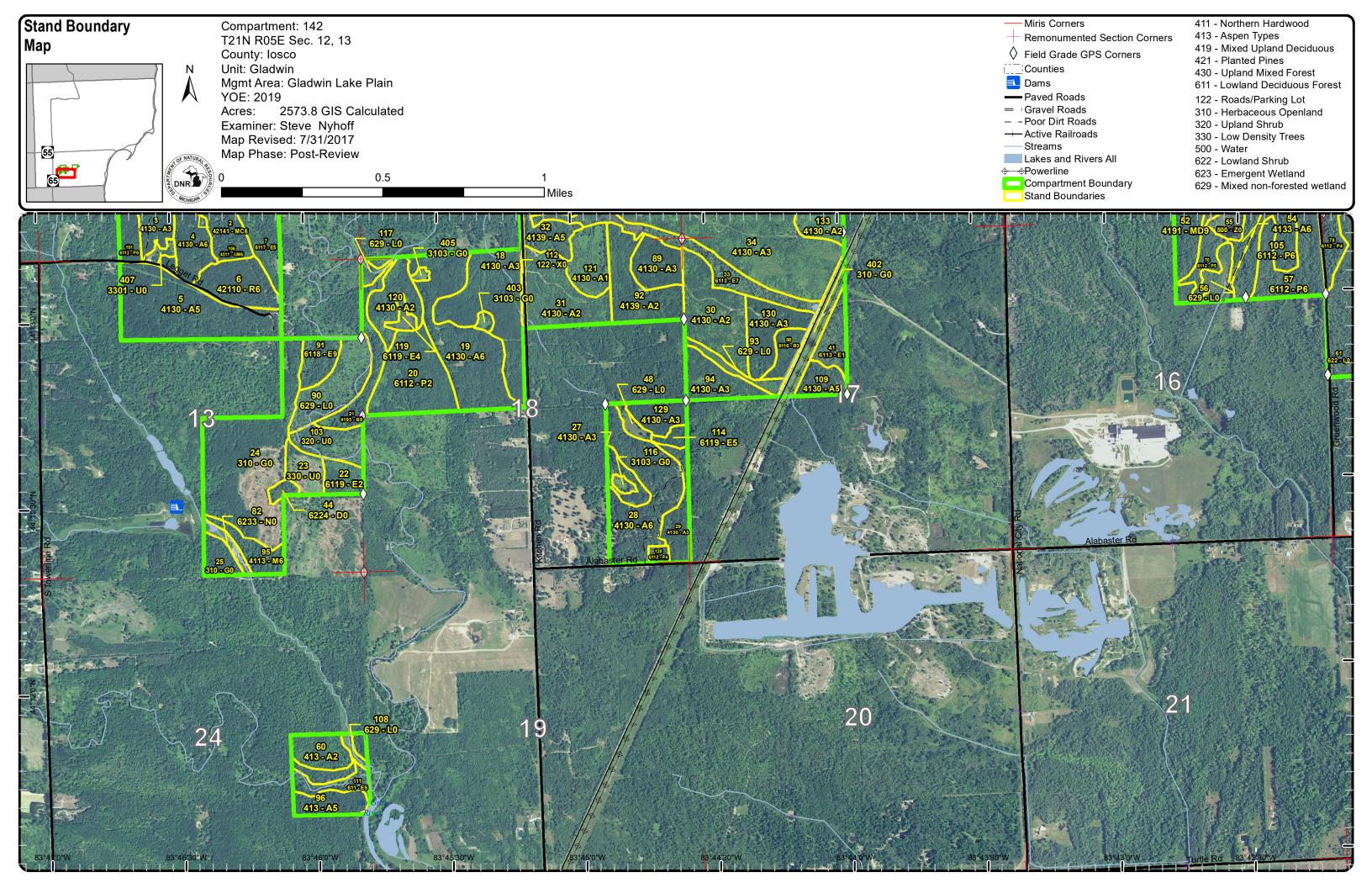
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

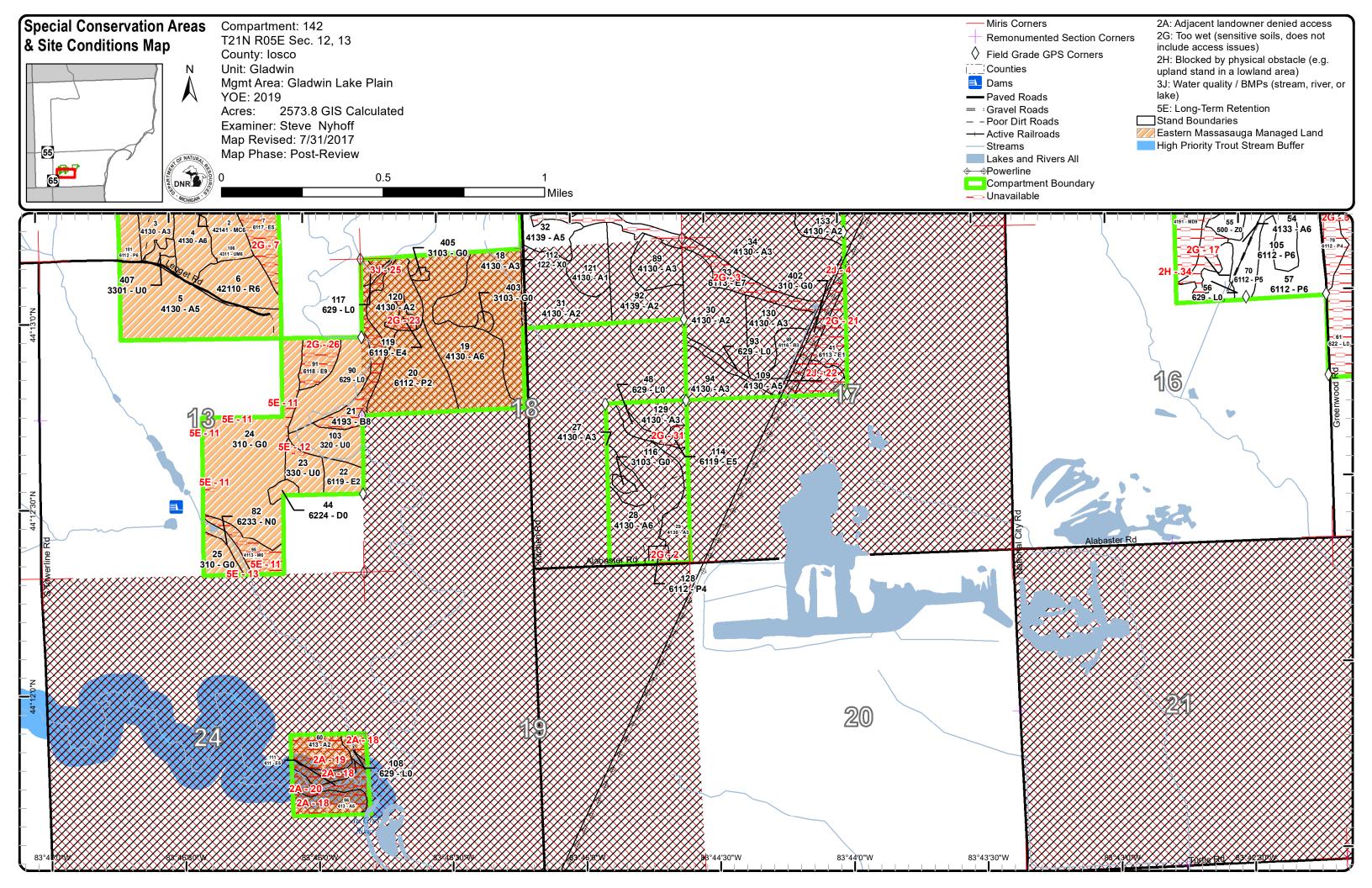


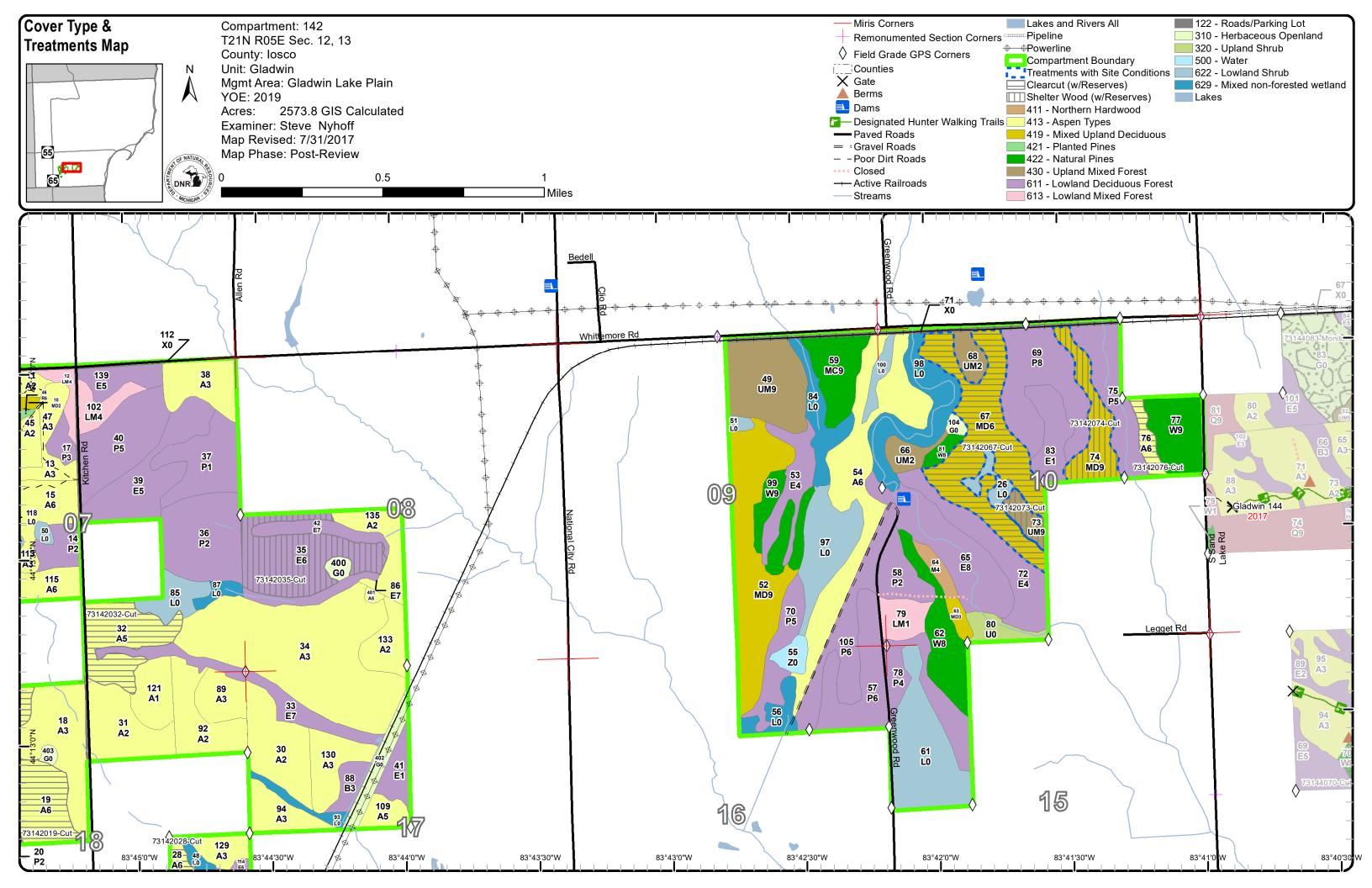


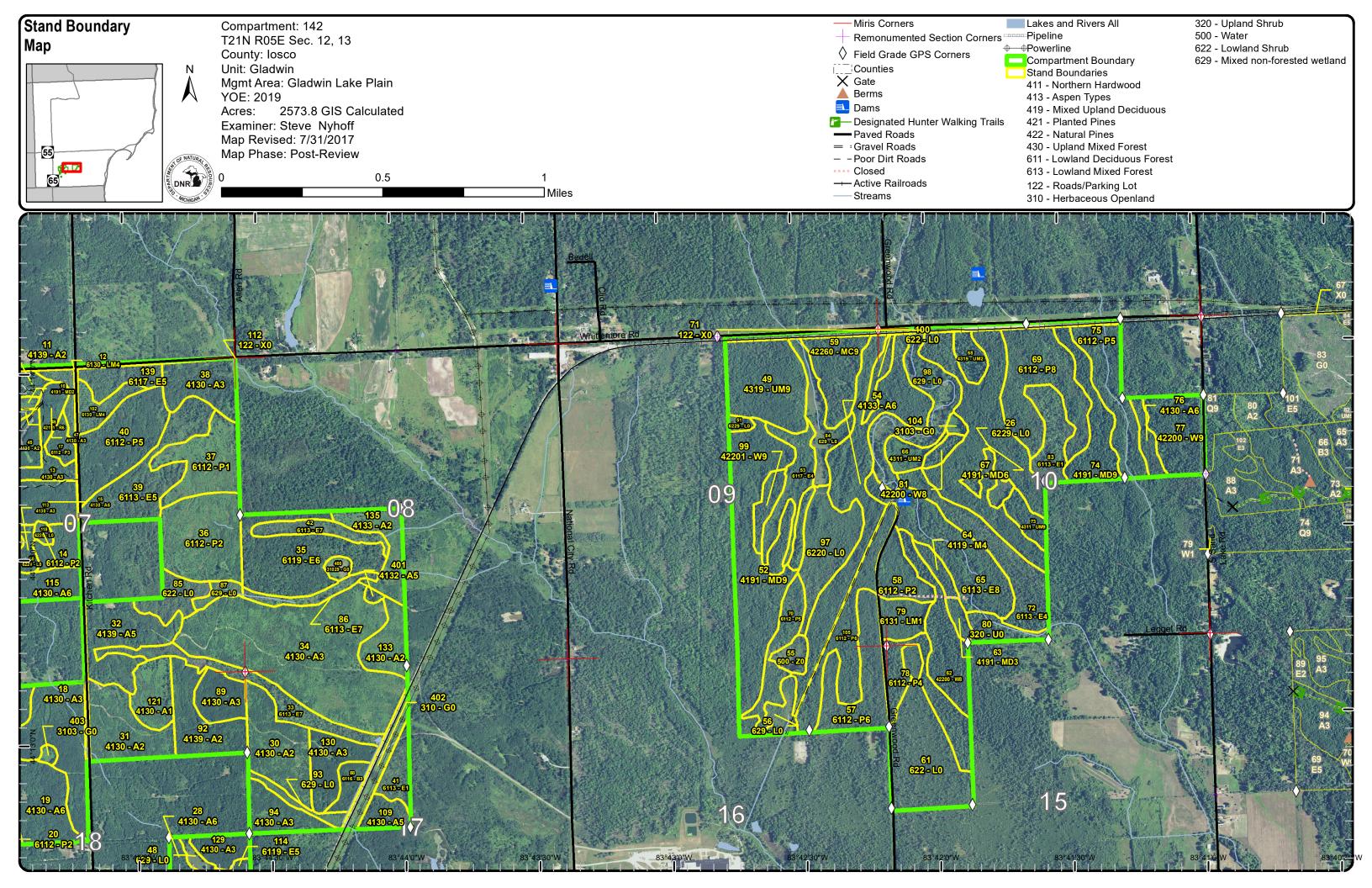


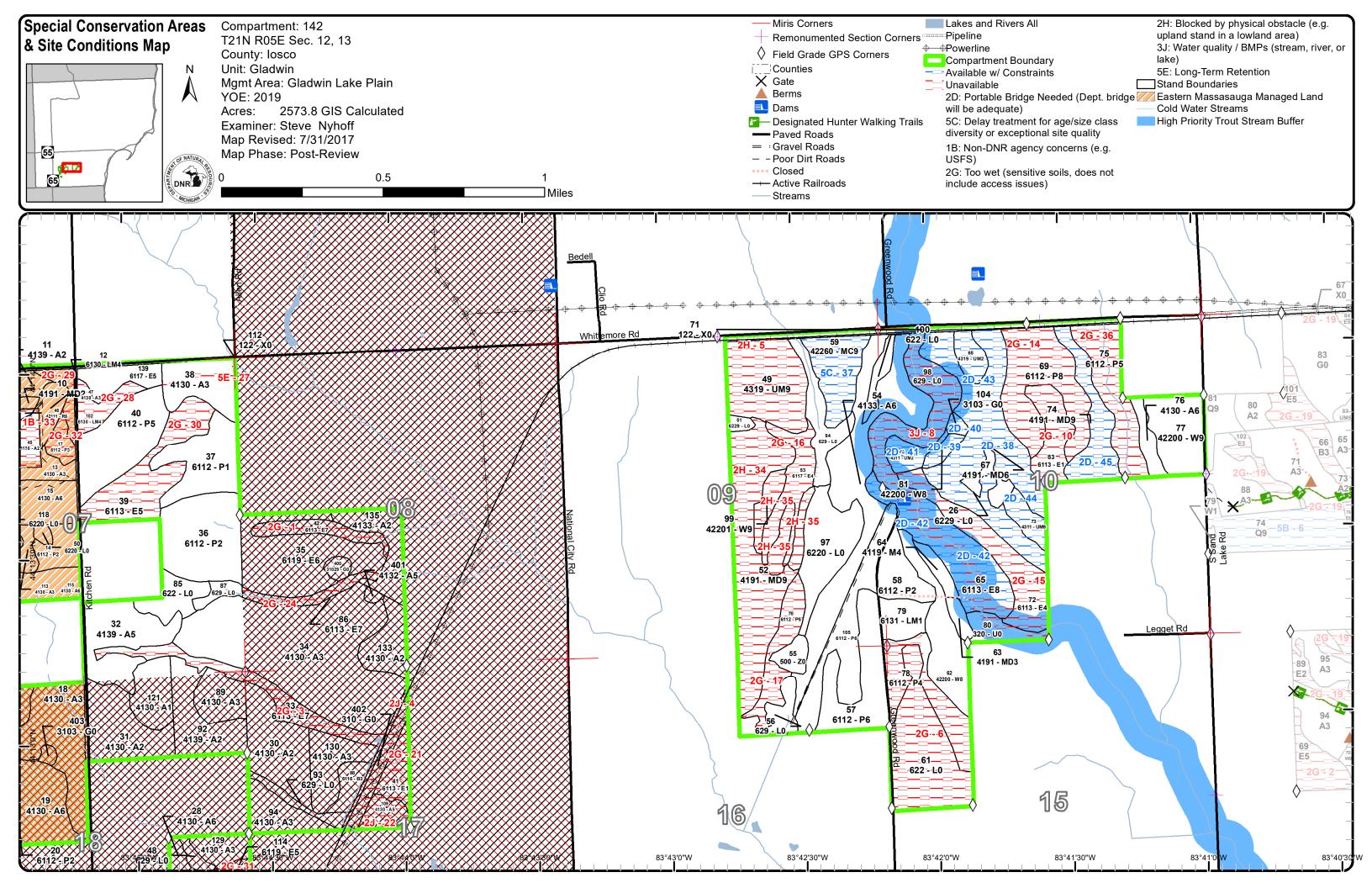


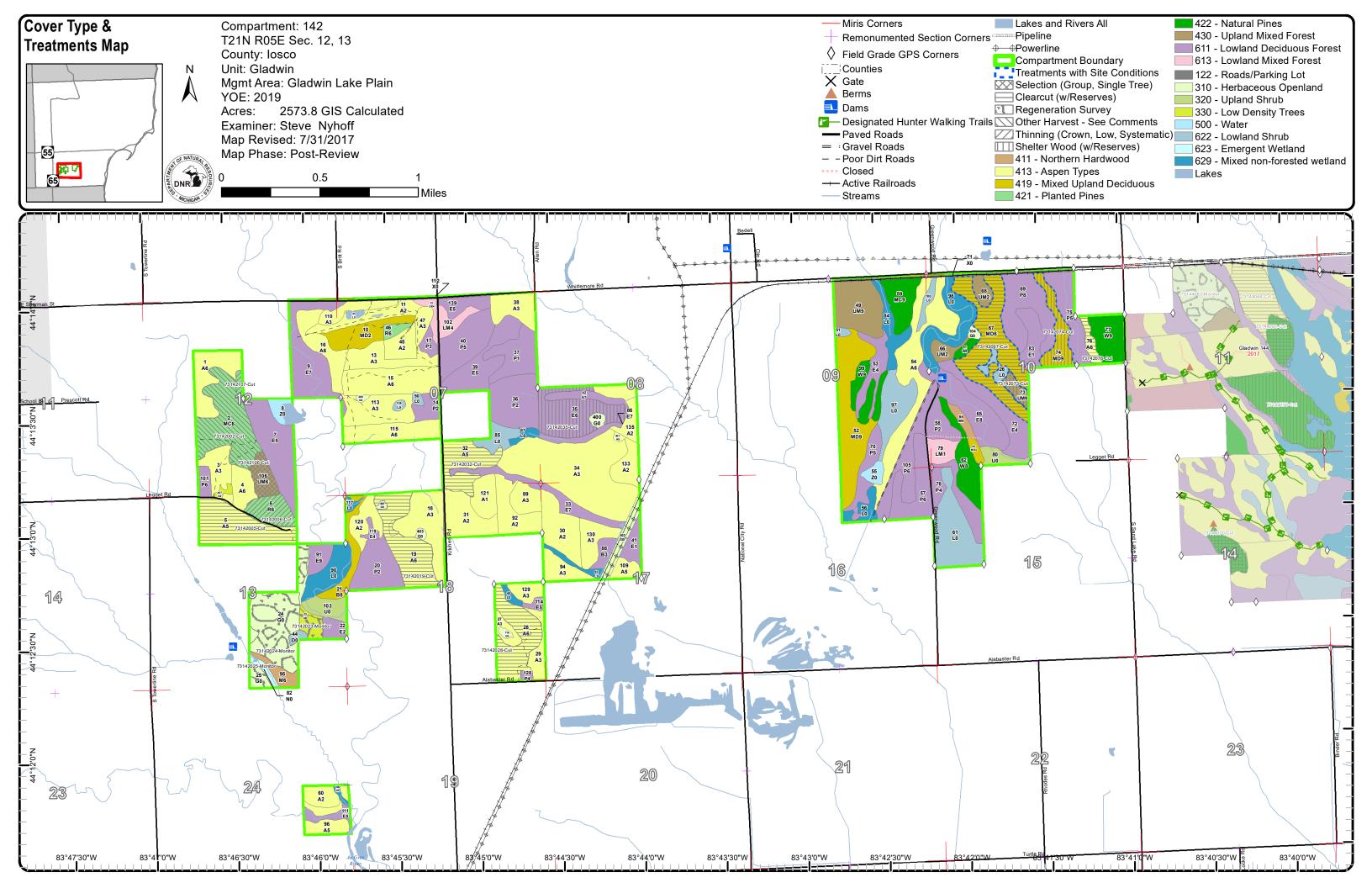












Gladwin Mgt. Unit

Compartment 142 Year of Entry 2019

Steve Nyhoff: Examiner



Age Class

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	Hou	LA SE	3 / 5		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	8 / 6		, 3 / 8		/ \$ ⁸ /\$		8/8		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				gr Jue	No. No.
Aspen	0	148	134	328	74	101	161	0	0	0	0	0	0	0	0	0	0	0	946
Herbaceous Openland	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96
Low-Density Trees	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Aspen/Balsam Poplar	0	69	15	49	81	43	75	24	0	0	0	0	0	0	0	0	0	0	355
Lowland Deciduous	0	0	17	40	0	39	8	0	0	34	0	0	0	0	0	0	0	244	382
Lowland Mixed Forest	0	0	0	11	0	6	0	0	10	0	0	0	0	0	0	0	0	0	27
Lowland Shrub	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	24	4	0	0	0	73	63	0	23	0	0	0	0	0	0	0	0	187
Natural Mixed Pines	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	22
Northern Hardwood	0	0	0	0	0	10	0	5	0	0	0	0	0	0	0	0	0	0	15
Paper Birch	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	16	23
Planted Mixed Pines	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	62
Red Pine	0	0	0	0	0	5	19	0	0	0	0	0	0	0	0	0	0	0	24
Treed Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Upland Mixed Forest	0	0	16	0	0	0	14	39	0	0	8	0	0	0	0	0	0	0	77
Upland Shrub	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Urban	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Water	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
White Pine	0	0	0	0	0	0	0	18	51	0	4	0	0	0	0	0	0	0	73
Total	384	241	186	435	155	204	413	149	83	57	12	0	0	0	0	0	0	260	2577



Report 2 – Treatment Summary

Gladwin Mgt. Unit Year of Entry: 2019

Acres of Harvest

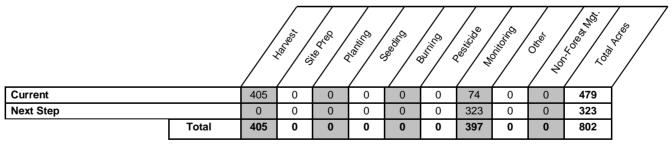
Compartment 142
Total Compartment Acres: 2,574

Commercial Harvest - 302 Harvests with Site Condition - 103 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

		/ (177 (17 (17 (17 (17 (17 (17 (17 (17 (17	(0) (0) (0) (0) (0) (0) (0) (0) (0) (0)			on short	Sining Soo	Resolution Roy	86,165		T Sept /
Aspen		166	0	0	0	0	0	0	0	0	166	ĺ
Lowland Deciduous		0	0	0	0	40	0	0	0	0	40	
Mixed Upland Deciduous		73	0	0	0	23	0	0	0	0	95	
Planted Mixed Pines		0	0	0	0	0	3	0	0	59	63	
Red Pine		0	0	0	0	0	19	0	0	0	19	
Upland Mixed Forest		0	14	0	0	8	0	0	0	0	22	
	Total	239	14	0	0	70	22	0	0	59	405	

Proposed and Next Step Treatments by Method



Report 3 -- Treatments

DNR
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Compartment: 142

Year of Entry: 2019

a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	73142002-Cut	59.4	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	51	111- 140	Harvest	Other - Specify	42111 - Planted Red Pine, Mixed Deciduous	Two-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Specs:

Harvest the stand as a species removal. Harvest the hardwoods and mark the red pines to remove 1/3 of the pine volume. In some areas, this could be done by row thinning. In other areas, the pines will need to be individually marked. The boundary of the row thinnings will need to be marked out with yellow. Do not try to save all the red pines by spec in the aspen areas. Because, in some areas the suppressed understory red pine is dense and trying to save it will reduce the site's loggability.

Next Step Treatments:

Regeneration of aspen, maple, oak, and pine in the areas not harvested with systematic thinning of red pine. <u>Acceptable</u>

Regen:

Other The treatment should follow the massasauga guidelines.

Comment:

Proposed Start Date: 10/01/2018

73142005-Cut 50.7 4130 - Aspen Poletimber 50 51-80 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Medium Retention Boundary

Habitat Cut: No Site Condition:

Prescription Harvest the stand as a clear cut with retention. The retention should be kept around the vernal ponds. This may remove a significant number of

Specs: acres from the stand to be harvested. In addition, mark some of the conifer to be retained for visual and for a seed source.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen mixed with pine and oak to at least a moderate stocking level.

Regen:

Other The treatment should follow the massasauga guidelines.

Comment:

Proposed Start Date: 10/01/2018

73142006-Cut 19.3 42110 - Planted Poletimber 51 171-Harvest Systematic 4211 - Planted Even-Aged Draft Field Thinning Red Pine Red Pine Well 200 Boundary

Habitat Cut: No Site Condition:

Prescription The stand needs to be thinned. Do a 3rd row thinning. The hardwoods in the rows and much of the hardwoods in the retained rows should be Specs: marked to cut. The hardwood should be marked it they can be removed without damaging the residual pines.

Next Step **Treatments:**

<u>Acceptable</u>

Other The treatment should follow the massasauga guidelines.

Comment:

Regen:

Proposed Start Date: 10/01/2018

73142019-Cut 47.4 52 Draft Field 4130 - Aspen Poletimber 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Well Retention Boundary

Habitat Cut: No Site Condition:

Prescription Harvest as a clear cut with retention. The retention should be in patches but not exceed 5% of the area. The retention should be kept around some Specs: of the low wet areas and include some of the upland ground...

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mainly aspen mixed with maple, birch and oak

Regen:

Other There are good corners in place to establish the north and south lines. The treatment should follow the massasauga guidelines.

Comment:

Proposed Start Date: 10/01/2018 s



Compartment: 142

Year of Entry: 2019

a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status	_
23	73142023- Monitor	8.2	330 - Low-Density Trees	Nonstocke	d		Monitoring	Natural Regen (Intermediate)	413 - Aspen	Even-Aged	Draft Field Boundary	

Habitat Cut: No Site Condition:

Prescription Stand is being harvested out of YOE and will need to have a monitor check at TCR+4

Specs:

Next Step Treatments:

Acceptable The stand is expected to regenerate to a medium stocking of aspen mixed with conifers.

Regen:

Other Percent to Treat = 100%, 9/23/2016 The stand was clearcut during the summer of 2016 and it just starting to regenerate. The slash load is heavy.

Sale Mongo Aspen Sale number 73-006-16-02 Comment:

Proposed Start Date: 10/01/2019

73142024-59.8 310 - Herbaceous Nonstocked Monitorina Natural Regen 413 - Aspen Even-Aged Field Boundary Monitor Openland (Intermediate)

Habitat Cut: No Site Condition:

Prescription Stand is being cut out of YOE so monitoring will need to be done at TCR+4 years

Specs:

Next Step Treatments:

Acceptable Aspen mixed with some maple and conifers.

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2019

73142025-6.3 310 - Herbaceous Nonstocked Monitoring Natural Regen 4139 - Aspen, Even-Aged Field Boundary Mixed Deciduous (Intermediate)

Monitor Openland

Prescription The stand is being harvested out of YOE so it will need to be checked at TCR+4.

Site Condition:

Specs:

Next Step Treatments:

Habitat Cut: No

Acceptable mixture of aspen and maple. The aspen is not expected to regenerate well because of age.

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2019

73142028-Cut 41.3 4130 - Aspen Poletimber 52 51-80 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Well Retention

Boundary

Habitat Cut: No Site Condition:

Prescription Harvest the stand as a clearcut retaining pockets of trees for retention. The pocket should not exceed 5% of the stands area. There are also some

Specs: larger oak and pine in the stand that should be retained either by spec or marked green.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

<u>Acceptable</u> Mainly aspen mixed with oak and pine.

Regen: Other

Comment:

The survey corner at the north west, north east and south east are in. The survey corner at the south west was not found but records say it is in.

There may be a trespass along the west line. There are areas in the stand that have a dense understory of white pine. Try and save some of the white pine regeneration. However, it would be impractical to try and save all of it. May want to incorporate some of the heavier pine areas into the

retention pockets.

10/01/2018 **Proposed Start Date:**

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Aspen mixed with maple, birch, and oak

Regen:

Other The stand is proposed to be set up 45 days after compartment review if the treatment is approved.

Comment:

Proposed Start Date: 10/01/2016

73142035-Cut 39.8 6119 - Mixed Poletimber 87 81-110 Harvest Shelterwood with 613 - Lowland Even-Aged Field

Lowland Deciduous Forest

Well

Retention

Mixed Forest

Deciduous

Boundary -Payment Unit Edits

Habitat Cut: No Site Condition:

Prescription Harvest the stand as a shelterwood with retention by removing the aspen, maple, and birch and retaining oak and pines. The harvest should be done during the dormancy period because the aspen in the stand is overmature and regeneration is questionable. The stand has numerous low wet Specs: pockets that are closer to being a lowland shrub type. However, they are small and they were not mapped. The access would be tricky because

there are a number of swales that would need to be crossed to get into the stand. The best access is from the south using the closed logging road

that goes through stand 32, 34, and 87. The use of culverts, crane mats, and/or composite mats will be needed.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

<u>Acceptable</u> Regeneration is to be a mix of aspen and maple with some pine.

Regen:

The harvest should retain all cedar and super canopy pines. The harvest can be kept south of stand 42 leaving what is north to be retention. The **Other**

stand is proposed to be set up 45 days after compartment review if the treatment is approved. Comment:

10/01/2016 **Proposed Start Date:**

4191 - Mixed 72.6 53 4199 - Other 73142067-Cut Poletimber 51-80 Harvest Clearcut with Two-Aged Draft Field **Upland Deciduous** Well Retention Mixed Upland Boundary

with Conifer

Site Condition: Portable Bridge Needed

Prescription Harvest the stand by cutting all the hardwood and marking the areas of thick pine down to 60 sq. ft. When marking, retain the super canopy white and red pines. There are some areas along stand 26, 69, and 83 may be too wet to harvest and will need to be painted out. Therefore, the actual Specs:

harvest acres may be significantly less than the inventory acres.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Habitat Cut: No

Acceptable aspen, maple, white pine and red pine under super canopy pine.

Regen:

Other The access is wet and will require the use of culverts, crane map, and maybe some composite mats. The harvest may also need to be restricted to

Comment: dry or frozen conditions.

Proposed Start Date: 10/01/2018

Treatments:

<u>Acceptable</u> Mainly aspen mixed with some maple, oak and conifers.

Regen:

Other 1 4 1 The west line grades from stand 76-75.

Comment:

10/01/2018 **Proposed Start Date:**

13.8 4311 - Pine, Aspen 106 73142106-Cut Poletimber 81-110 Harvest **Group Selection** 4319 - Mixed Two-Aged Draft Field Upland Forest Boundary

Habitat Cut: No Site Condition:

Prescription Harvest the stand as a species removal by removing the hardwoods and marking the areas of thick white pines down to 90 BA. The marking should be done to make the stand loggable. In areas of thick aspen, open the stand up, retaining less than 20 BA. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

<u>Acceptable</u> Overstory white pine with and understory of aspen mixed with conifers, maple, and oak.

Regen:

The treatment should follow the massasauga guidelines. Other

Comment:

Proposed Start Date: 10/01/2018 Gladwin Mgt. Unit Report 3 -- Treatments

Compartment: 142 Year of Entry: 2019 OF NATURAL PROPERTY OF NAT

a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	73142107-Cut	3.1	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	51	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Harvest the stand by removing 1/3 the red pine volume and the hardwoods where feasible. This may be done by row thinning and individually tree

Specs: marking.

Next Step Treatments:

s

Acceptable Regen:

Other Comment:

Proposed Start Date: 10/01/2018

Total Treatment Acreage Proposed:

479.0

Gladwin Mgt. Unit

Compartment: 142 Year of Entry: 2019 Steve Nyhoff: Examiner

Availa	ability for	Managemer	nt										
Total	Acres	Acres Avail	Acres	De	ominaı	nt Site	e Con	dition	S				
Acres	Available	With Condition	Not Available		2D	5C	1B	2A	2G	2H	2J	3J	5E
946	880	0	66	Aspen			14	28	10		8		6
95	77	2	17	Herbaceous Openland	2						12		5
12	11	0	1	Low-Density Trees									1
355	235	0	120	Lowland Aspen/Balsam Poplar					120				
381	61	25	295	Lowland Deciduous	25			8	258			24	6
26	11	0	15	Lowland Mixed Forest					15				
205	128	0	77	Lowland Shrub					47	0		30	
4	4	0	0	Marsh									0
185	27	95	63	Mixed Upland Deciduous	95					63			
22	0	22	0	Natural Mixed Pines		22							
15	6	0	9	Northern Hardwood									9
23	7	0	16	Paper Birch								16	
62	62	0	0	Planted Mixed Pines									
24	19	0	5	Red Pine			5						
3	3	0	0	Treed Bog									
76	14	23	39	Upland Mixed Forest	23					39			
22	18	0	4	Upland Shrub								4	
28	28	0	0	Urban					0	0			
15	15	0	0	Water									
73	51	4	18	White Pine	4					18			
2,574	1,657	171	745	Total Forested Acres	149	22	19	36	450	120	20	74	27
	64%	7%	29%	Relative Percent		·	·			•			

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

1 Unavailable 2G: Too wet (sensitive soils, does not include access issues) Unspecified U	Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Comments:	1	Unavailable	soils, does not include	11	Unspecified	Unspecified	Unspecified	Unspecified
	C	Comments:						

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2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2J: Blocked by Railroad	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	39	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	69	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	48	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	58	2G: Too wet (sensitive soils, does not include access issues)	3D: Recreational / Scenic values	Unspecified	Unspecified
(Comments:						
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	46	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
11	Unavailable	5E: Long-Term Retention	13	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
12	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
13	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

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Steve Nyhoff: Examiner

14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	44	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	19	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
18	Unavailable	2A: Adjacent landowner denied access	17	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
19	Unavailable	2A: Adjacent landowner denied access	11	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

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20	Unavailable	2A: Adjacent landowner denied access	8	3J: Water quality / BMPs (stream, river, or lake)	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
C	Comments:						
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	2J: Blocked by Railroad	Unspecified	Unspecified	Unspecified
C	Comments:						
22	Unavailable	2J: Blocked by Railroad	8	2A: Adjacent landowner denied access	Unspecified	Unspecified	Unspecified
C	Comments:						
23	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
24	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
25	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: ouffer for the AuGro	es River.					

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26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified	
C	Comments:							
27	Unavailable	5E: Long-Term Retention	3	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	
(Comments:							
28	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified	
C	Comments:							
29	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified	
C	Comments:							
30	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	36	Unspecified	Unspecified	Unspecified	Unspecified	
C	Comments:							

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31	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
32	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
33	Unavailable	1B: Non-DNR agency concerns (e.g. USFS)	19	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Radio tower site.						
34	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	63	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
35	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	18	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
36	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	29	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

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37	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
38	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	73	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
39	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	4	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
40	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	2	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
41	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	8	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						

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42	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	25	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
43	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
44	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
45	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	23	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
46	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
48	Unavailable Comments:	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified

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49	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						
50	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Gladwin Mgt. Unit Compartment: 142
Year of Entry 2019





* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservation Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen constocked trout populations and those of other coldwater fish specyear to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effects as aesthetics, habitat, bank stability, timber production, and the	ne unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian ects on water quality and quantity, as well

S	Gladwir	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 142 Year of Entry: 2019		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
1	4130 - Aspen	Poletimber Well	30.7	42	51-80	The stand has areas that look to be older. There are pockets were residual oak and pine were left. These trees are log to XL log size.		
2	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	62.5	51	111-140	This stand is a mix of planted red pine and natural hardwoods. The stand has areas of pure red pine. There are also areas where the pine is mixed with aspen. There are also areas where the aspen is overtopping red pine.		
3	4130 - Aspen	Sapling Well	18.1	20	Immature	This stand was harvested in 1997 and it has regenerated well. The sale was Kitchen Road West, sale number 73-005-95-01. The crown closure is around 85% and there are pockets that are sparse.		
4	4130 - Aspen	Poletimber Well	14.1	42	51-80	The stand is doing well. It could be harvested as a clear cut with retention. However, hold the stand for 10 years.		
5	4130 - Aspen	Poletimber Medium	50.7	50	51-80	The stand has an inclusion of R9 along Legget Rd. The aspen quality in the stand is variable. Some of the trees have good form while many do not. The stand also has numerous vernal ponds in it. The maple and birch in the stand is concentrated around the ponds.		
6	42110 - Planted Red Pine	Poletimber Well	19.3	51	171-200	The stand needs to be thinned. Do a 3rd row thinning. The hardwoods in the rows and much of the hardwoods in the retained rows should be marked to cut. The hardwood should be marked it they can be removed without damaging the residual pines.		
7	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	47.6	87	81-110	The stand is wet and there is a lot of frost heave. It has a fair amount of windthrow and much of it is the dead ash and the declining aspen. Also, there are many small springs in the stand and the water table appears to be near the surface.		
9	6113 - Lowland Maple	Sawtimber Poor	46.4	89	1-50	The stand is low and wet. It is on the flood plain of the Au Gres River. The stand is inoperable because of wetness and access. The flood plain is bordered by steep slopes. The ash that was in the stand is dead and coming down leaving the red maple. Other species that are present are cedar, basswood, and hemlock		
10	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	23.6	9	Immature	This stand was clearcut in March 2008 under the sale Police Tower Pine, sale number 73-008-05-01. The harvest was an aspen regeneration cut retaining the oak 6" DBH or less. The regeneration is moderate. There are some areas that are fairly		

4139 - Aspen, Mixed

Deciduous

11

Sapling

Medium

19.0

10

Immature

regeneration is moderate. There are some areas that are fairly open which are oak and pine and other areas that are dense which are aspen.

The stand was clearcut in fall of 2006 under sale #73-008-05-01,

Police Tower Pine. The harvest retained the oak that were 6" or less in DBH. The aspen regeneration has come back nicely. The terrain is not uniform because of past activity on the land including the digging of a rail road grade that has since been abandoned.

S t	Gladwir	Gladwin Mgt. Unit			Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	6130 - Fir, Aspen, Maple	Poletimber Poor	5.5	43	1-50	The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. When it was harvested, some conifers were left along Kitchen Road. These trees are mainly balsam fir and cedar. The stand is wet and the ash that regenerated from the harvest is dead and coming down. The loss of the ash has now brought the crown closure to around 25%. The residual stand is now maple and quaking aspen with some residual Balsam Fir and Cedar.
13	4130 - Aspen	Sapling Well	24.2	20	Immature	The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. The regeneration is good with some scattered openings.
14	6112 - Lowland Aspen	Sapling Medium	10.3	20	Immature	The stand is a mix of dry ridges that run north and south with low wet swales between them. The swales retain water most of the year. These are mainly lowland shrubs. The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01.
15	4130 - Aspen	Poletimber Well	41.7	29	51-80	The stand was harvested in the sale called Ace's Honor, sale number 73-052-85-01 which was closed in 1988. The stand is a mixture of upland areas with lowland swales that run north south. The swales hold water most of the year. There are areas outside of the swales that are wet. In these areas, the tree species are heavier to quaking aspen, birch, and maple. The areas that are heavier to big tooth aspen are on the more upland areas.
16	4130 - Aspen	Poletimber Well	24.5	43	81-110	The stand slopes down to the Au Gres River flood plain. The terrain is rolling. The draws between the ridges are wet, often having intermittent springs in them. Much of the eastern ½ of the stand could be harvested. However, the stand becomes less operable going west. Many of the draws are too wet to harvest, especially as they get closer to the flood plain of the Au Gres River.
17	6112 - Lowland Aspen	Sapling Well	5.6	20	Immature	The stand was harvested in 1997 in the Kitchen Road West; sale number 73-005-95-01. The stand is wet. In the last inventory cycle the stand had only a moderate stocking of regeneration. Since then birch and balsam fir have seeded in. Currently, the crown closure is around 75%. Much of the stand is borderline being too wet to harvest.
18	4130 - Aspen	Sapling Well	39.7	20	Immature	The stand has regenerated well. In the north end of the stand there are several north to south swales. These swales are more like a L-Type which are heavy to tag alder and Michigan holly. The pockets are too small to map out into new stands. The stand was harvested in 1997 in the Kitchen Road West sale, sale number 73-005-95-01.

4130 - Aspen

19

Poletimber Well

46.2

52

81-110

The stand is on a ridge that looks over stand 20.

S t	Gladwii	Gladwin Mgt. Unit				Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	6112 - Lowland Aspen	Sapling Medium	33.1	20	Immature	This stand was heavily rutted when it was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. The stand has regenerated slowly and in a patchy fashion. Currently, the stand density goes from fully stocked to poorly stocked. In the open areas, birch, fir, and cottonwood have been seeding in. The overall crown closure is around 70%. Along the south boundary there are numerous shooting lanes cut and maintained from the private land owner. The stand does have a few inclusions of lowland shrubs.
21	4193 - Birch, Aspen	Sawtimber Medium	15.9	92	51-80	The stand is the ridge above the AuGres River. It has many drainages and springs crossing it. The south end is heavy to birch and aspen. The north end is heavier to pine and maple. The stand should be left as a buffer to the AuGres river.
22	6119 - Mixed Lowland Deciduous Forest	Sapling Medium	7.8	20	Immature	When the stand was harvested, there was a problem with rutting. This has delayed the regeneration, especially in the eastern ½ of the stand. Currently, the regeneration is starting to take off, mainly from the seeding in of fir, pine and birch. Therefore, the age is not uniform throughout the stand. Overall, the stand is a lite E2. The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. The stand slopes down to the East.
27	4130 - Aspen	Sapling Well	6.5	21	Immature	The stand has regenerated nicely. It is a mix of aspen and red maple, but it is much heavier to aspen. The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01. There are some open pockets but they are scattered
28	4130 - Aspen	Poletimber Well	41.3	52	51-80	The aspen ages that were taken was 50 and 54; and Red Pine age was 91. The stand is mainly aspen with a thick understory of maple and pockets of pine. There is a 1/2-acre pocket of mature red pine. The red and white pine are also seeding in. This has caused some dense pockets of pine regeneration.
29	4130 - Aspen	Sapling Well	12.0	21	Immature	The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01. It is lower than stand 129 and it has regenerated well. The stand is a mixture of aspen and red maple. It has a drainage running along the southern edge. This area is more of a L-Type. However, it is small, so it was included in the stand.
30	4130 - Aspen	Sapling Medium	31.1	11	Immature	The stand was final harvested in the winter of 2005/2006. The sale was "Whittemore's Kitchen" sale number, 73-005-05-01. North of the visible trail the stand regenerated well. South of the trail the regeneration is patchy. There are some wet pockets but they are widely scattered.
31	4130 - Aspen	Sapling Medium	28.3	11	Immature	The stand is part of an old beach system. It has many ridges and drains that run north to south. It was final harvested in the winter of 2006. The sale was "Whittemore's Kitchen". The sale number was 73-005-05-01. Many of the drainages are full of water or are lowland shrub types.
32	4139 - Aspen, Mixed Deciduous	Poletimber Medium	32.0	44	1-50	The stand was cut with a KG Blade in 1972. It is made up of uplands and very wet lowland shrub swales. These swales flow into stands 33 and 89 that feed into Elm Creek. The ash in the stand is dead and it is coming down. The terrain is hummocky.

S t	Gladwii	Gladwin Mgt. Unit			- Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	6113 - Lowland Maple	Sawtimber Poor	23.0	86	81-110	The stand is on a Tawas-Lupton muck soil and is very wet. The ash in the stand is dead and coming down leaving maple and birch. Beaver are also impacting the stand by flooding a portion of it. The flooding has backed up into the aspen stands on either side and along the existing drainages. The stand is too wet to harvest and any harvesting near the stand should include buffers to reduce wind throw problems.
34	4130 - Aspen	Sapling Well	114.9	9	Immature	The stand was final harvest in the summer/winter of 2007 under the "Whittemore's Kitchen" sale, sale number 73-005-05-01. It is mainly uplands. However, there are some depressions which are heavy to tag alder, birch and maple. The oak in the stand is toward the east side.
35	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	46.3	87	81-110	The stand is one of the dryer lowlands. It is close to a 50-50 mix of uplands and lowlands.
36	6112 - Lowland Aspen	Sapling Medium	40.5	7	Immature	The stand is a mix of uplands and lowlands and it could be classified as either. The stand was final harvest in the "Whittemore's Kitchen" sale, sale number 73-005-05-01. The south half of the stand was cut in the winter of 2007 and the north in the winter 2009. The aspen is coming back in the clone pockets in a similar density as was in the stand before it was harvested. The lower wet ground is filling back in with red maple. The west side has balsam fir. The stand is so variable in soil types that the cover type will be a mix of aspen, maple, and conifers.
37	6112 - Lowland Aspen	Sapling Poor	28.4	7	Immature	This is a very mixed stand that varies from dry ridges to wet swales. The stand was clear cut in the fall and winter of 2009 in the sale "Whittemore's Kitchen", sale number 73-005-05-01. The regeneration is coming back. However, it is variable, going from low stocking to full stocking. The main factor is the soil wetness. The aspen on the higher ridges is coming in nicely while the swales are lagging due to the water table. Overall, the stand is on the light side of a moderately stocked regeneration.
38	4130 - Aspen	Sapling Well	20.8	21	Immature	Overall the stand is coming in well and there is a mix of balsam fir, white pine, and red maple. These species are more common in the eastern 1/3 of the stand. Aspen is mainly in the western 2/3 of the stand. The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01. The crown closure is closer to 75%. There is also a drainage that flows through the stand. This area was not harvested and is the retention for the stand. The base of the drainage is mainly lowland shrubs that grades into cattails as it flows east to Elm Creek.
39	6113 - Lowland Maple	Poletimber Medium	35.5	43	51-80	The stand is low and wet. It has ridges of swamp hardwoods and swales of lowland shrubs. The lower areas use to have ash but it is dead and coming down. The main species now in the wetter ground is paper birch.
40	6112 - Lowland Aspen	Poletimber Medium	35.7	43	1-50	This stand is on a slightly higher ridge. Because of that it is heavier to aspen. The stand does have pockets of balsam fir in it as well. The terrain is hummocky. The mixture of uplands to lowlands is around 50-50. However, for management purposes it is lowlands with uplands, because the lowlands will have the greatest impact on how and when the stand will be harvested.

S	Gladwii	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	6113 - Lowland Maple	Sapling Poor	10.2	26	1-50	The ash in the stand is gone. Currently red maple saplings are much of the canopy. There are some residual maples, firs, tamaracks, and quaking aspen logs. However, they are scattered.
42	6113 - Lowland Maple	Sawtimber Poor	11.0	89	1-50	The stand is on a Tawas-Lipton Muck soil and it is very wet. It is part of a drainage the goes to Elm Creek. The ash in the stand is dead and coming down. Wind throw is thick along stand 135. The crown closure is around 25%.
45	4130 - Aspen	Sapling Medium	14.1	20	Immature	This stand is on a long-term lease with the State Police for a radio tower site. It was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. The radio tower was installed around 1998
46	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	4.6	43	141-170	The stand is on a long-term lease with the state police for a radio tower.
47	4130 - Aspen	Sapling Well	7.6	20	Immature	The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. The terrain is hummocky. There are low areas in the stand. These areas are heavy to birch. The stand has residual white pine, hemlock, and fir
49	4319 - Mixed Upland Forest	Sawtimber Well	39.2	67	111-140	The aspen in the stand is pole size and they are around 50 years old. The white pine has a variable density and when they were aged the co-dominant trees are around 66 years old. The stand does contain some super canopy white pines that were aged are around 110 years old.
52	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	62.7	66	81-110	The stand is a mix of ridges and swales. The ash in the swales is dead and they are dominated by tag alder and Michigan holly. Much of the stand has a heavy under story of maple saplings. The white and red pines in the stand are often super canopy trees. The pine is mainly in pockets where it is the dominate species. In places balsam fir is becoming part of the over story, especially toward the south end. When aging the trees, there was a noticeable release in the pine that took place between 28 and 32 years ago.
53	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Poor	18.4	29	1-50	The ash in the stand is dead. The current canopy closure is around 25%, though it may be slightly lower. The understory is mainly tag alder and Michigan holly with marsh grass. Some areas where the water has gone down are regenerating with red maple and birch. The stand's overstory is thicker at the north and

4133 - Aspen, Mixed

Pine

54

Poletimber

Well

66.0

34

51-80

maple and birch. The stand's overstory is thicker at the north end and goes more to lowland shrubs at the south end.

The stand is along Gypsum Road and the AuGres River. It is

mainly a series of upland ridges with lowland swales. There are portions of the stand that are quite wet and could be classified as lowland shrubs with some swamp hardwoods. The stand has some super canopy white pines that are between 80 and 110 years old.

S t	Gladwir	n Mgt. Unit		Report 7	Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	6112 - Lowland Aspen	Poletimber Well	32.2	39	81-110	Examined stand to determine if harvest was silviculturally appropriate as an option, given the proposed replacement of a water pipeline on an easement along the west side of the stand. Stand dbh is variable. Very few log sized aspen. Mostly poles and saps. Aspen is showing signs of decadence in many parts of the stand. Aspen appears to be growing off-site. Much of the stand is comprised of a medium to heavy advanced understory of balsam fir. EAB mortality in ash noted. Stand is bound on three sides with a very high grade (road); causing an already wet stand to retain water. There are ponds of water along the south portion of the stand. Also noted marsh grass and rushes.
58	6112 - Lowland Aspen	Sapling Medium	14.9	14	Immature	The stand was clearcut in 2003. When it was set up the stand was an A4/L and was of poor quality. The harvest removed all the aspens, hardwoods and orange painted white pines. Overall, the stand is about 55% lowlands and 45% uplands. There are some larger pockets where the stand did not regenerate well. These areas are now more of a lowland shrub type. It is also noticeable that the skid trails did not regenerate to trees but to Michigan holly
59	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	22.2	73	111-140	The stand has some super canopy white and red pines at the south end. Most of them appear to be around 72-years-old. However, some of the bigger ones are around 110 years-old. The aspen and pine that are in the co-dominate position are around 42 years old. There are some pockets of thick white pine seedlings.
60	413 - Aspen	Sapling Medium	11.3	19	Immature	The stand was harvested in a negotiated sale in the summer of 1998. The regeneration is patchy with multiple aspen clones. The overall crown closure looks to be around 55% from the 2014 CIR imagery.
62	42200 - Natural White Pine	Sawtimber Medium	25.8	70	51-80	The stand was harvested in 2003. When it was harvested, the stand was a W6/W2. The harvest removed all the aspens, hardwoods, and orange painted white pines. Currently, the residual red and white pines make up the overstory. The understory is coming in and it is a mix of aspens, maples, pines, and some scattered oaks. The white pine regeneration is thick in areas where there is a significate canopy gap. The west side of the stand is a little lower and the understory is thick to michigan holly.
63	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	3.9	16	Immature	The stand was harvested in 2001. During the harvest, all the hardwoods were removed and a portion of the white pines. The stand is mainly upland but there are numerous low pockets. The regeneration is coming in well overall.
64	4119 - Mixed Northern Hardwoods	Poletimber Poor	5.3	69	1-50	Michigan holly is thick in the understory in spots. There is a lot of aspen and ash mortality in the stand. Any treatments should manage for white pine. Currently, it has a fair understory of it.

81-110

6113 - Lowland Maple

65

Sawtimber

Medium

42.4

The red maple was aged at 48 years old, white pine 68, and birch

The stand was left as a buffer for the AuGres River. There are

parts of the stand that are very wet and hard to access. It has numerous seeps adding to the difficulty in harvesting it. The ash that was part of the stand is dead. As the ash comes down regeneration gaps are being made, which are seeding in with maple and white pine.

S t	Gladwin	Gladwin Mgt. Unit			Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	4311 - Pine, Aspen Mix	Sapling Medium	7.5	14	Immature	In 2003 the stand was clearcut removing all species except pine. This left a pocket of log size white pine that became stand 81. The regeneration is patchy and it is a mix of aspen and white pine. The north end became a raspberry field and became stand 104. In addition, there are also pockets of phragmities in the stand
67	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	72.6	53	51-80	The stand is a matrix of uplands and lowlands with the uplands being about 70%. When the aspen and maple were cored, the ring count supports the OI Stand Year Origin of 1964.
68	4319 - Mixed Upland Forest	Sapling Medium	7.6	14	Immature	The stand was clearcut in 2003 removing all the hardwoods retaining the pines. The regeneration is starting to fill in nicely. White pine has regenerated throughout the stand. There is a significant component of aspen regeneration at the north end and red maple at the south end. There is also some oak regeneration scattered throughout the stand.
69	6112 - Lowland Aspen	Sawtimber Medium	44.1	53	51-80	The aspen in the stand were cored and they were aged at 52 years old, which support the OI Stand Year Origin was 1964. The stand is about 40% uplands and 60% lowlands. A significant portion of the lowlands is too wet to harvest. The ash that was in the stand was in the lowest and wettest pockets. However, it is dead now. The crown closure in those areas is around 30%.
70	6112 - Lowland Aspen	Poletimber Medium	17.3	34	51-80	The stand is wet. There is a lot of blow down especially next to the non-forested wetlands to the east. The ash in the stand is dead and accounts for much of what has come down.
72	6113 - Lowland Maple	Poletimber Poor	31.3	61	51-80	The stand was heavy to ash, which is now dead. The area is a broad base drainage and quite wet. The current overstory trees were cored, maple age was 88 years old, the white pine was 48 and 52 years old. Because of the mortality in the ash the crown closure is now closer to 25%. Blow down of trees is common making navigation difficult. Overall, the stand is too wet to harvest.
73	4311 - Pine, Aspen Mix	Sawtimber Well	7.7	99	81-110	Currently, the stand has numerous super canopy white pines with an understory of maple, aspen, and white pine. The co-dominate white pine were cored and were aged at around 98 years old. The co-dominate aspen were aged around 52 years which supports the 1964 year of origin. The stand varies from aspen/white pine south east to red pine/oak/aspen north west.
74	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	22.6	87	81-110	The stand was selectively cut in 2003 taking the BA down to 90. It has now started to regenerate. The regeneration is thick in the portions of the stand where the crown closure is less than 50%.
75	6112 - Lowland Aspen	Poletimber Medium	28.7	54	81-110	There is a drainage running thru the center of the stand. The ash along the drainage is dead making the drainage virtually nonforested. There is also a fair amount of blow down. The terrain is hummocky. There are portions of the stand that are too wet too cut.
76	4130 - Aspen	Poletimber Well	6.8	54	81-110	The stand is hummocky. The north end is wet but gets dryer going south. White pine understory gets thicker going south.

S t	Gladwii	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
77	42200 - Natural White Pine	Sawtimber Well	24.8	77	81-110	The stand was harvested by a select cut in 2003. The harvest removed 20 BA of mixed pine and hardwoods. Phragmite is currently in and along the old skid trails and at the landing. Pine regeneration is highest where the crown closure is around 20 To 30%.
78	6112 - Lowland Aspen	Poletimber Poor	24.0	69	1-50	The stand is mainly lowlands with some small upland areas along the edges. Some of the aspens in the stand are sawlog size but much of it is only poles. The ash that was in the stand is now dead and coming down. Overall the stand is too wet to harvest.
79	6131 - Hemlock, White Pine, Maple, Birch	Sapling Poor	11.2	26	Immature	The stand was clearcut in 2003. When it was harvested, the stand was an A4/L of poor quality. The harvest removed all the aspens, hardwoods and orange painted white pines. The stand did not regenerate well. Currently it is made up of the residual white pines mainly. There are pockets of aspens and maples which are heavier along the edges. There are some large lowland shrub pockets in the central portion of the stand. It is about 65% lowlands and 35% marginal uplands.
81	42200 - Natural White Pine	Sawtimber Medium	3.9	99	81-110	In 2003 the stand was a part of stand 66 which was clearcut of all species except pine. This area is mainly white pine sawlogs in the overstory. It has an understory of white pine at the north end and aspen at the south end.
83	6113 - Lowland Maple	Sapling Poor	17.4	12	Immature	The stand's Year Origin is 1964. However, the overstory ash is now dead and coming down making navigation difficult. There are some scattered extra-large sawlog maple in the stand. At the current time, the stand is starting to regenerate with white pine and maple. When the regenerating trees were cored they averaged 12 years old. The understory is also thick with lowland shrubs.
86	6113 - Lowland Maple	Sawtimber Poor	8.0	89	1-50	The stand is a drainage that flows to the east into Elm Creek. The ash in the stand is now dead and the majority of them have been blown over. The crown closure is now around 30% and it is mainly maple.
88	6116 - Lowland Birch	Sapling Well	7.3	21	Immature	The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01. The stand is in a depression and it is heavy to birch throughout the stand, except at the south end, which is heavy to quaking aspen.
89	4130 - Aspen	Sapling Well	13.6	21	Immature	The stand is regenerating well. This area is more upland and lacks the drainage channels that stand 92 has. It was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01

6118 - Lowland

Deciduous with Cedar

91

Sawtimber

Well

9.9

89

81-110

The stand is on an upper tier of the flood plain of Au Gres River. The stand use to have a large component of ash that is now dead

and coming down. The central portion of the stand is very wet and heavy to cedar, balsam fir with some maple. The other areas of the stand are mainly red maple mixed with quaking aspen, and mixed oak. Overall, most of the stand is too wet to harvest.

S t	Gladwin	Mgt. Unit		Report 7	Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
92	4139 - Aspen, Mixed Deciduous	Sapling Medium	24.7	21	Immature	The stand is part of an old beach system and has many ridges and drains running north and south. Beaver have impacted the stand to some degree. Paper birch is seeding into the drainages. The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01
94	4130 - Aspen	Sapling Well	15.2	11	Immature	The stand was final harvested in the winter of 2005/2006. The sale was "Whittemore's Kitchen" sale number, 73-005-05-01. The regeneration is good. In the central portion of the stand it is less dense. Overall, the crown closure is closer to 75%.
95	4113 - R.Maple, Conifer	Poletimber Well	9.8	48	81-110	This stand was left out of the sale Mongo Aspen, sale number 73-006-16-02. It is part of the retention for stand 24. The terrain is undulating with numerous vernal ponds. The balsam fir is thickest along the slope that goes down into the flood plain of Mongo Creek.
96	413 - Aspen	Poletimber Medium	16.7	53	81-110	The crowns look like they are mainly aspen with some maple and oak. There is evidence from the 2014 CIR imagery that there is some mortality.
99	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	18.4	64	141-170	The stand is a series of ridges that are flanked by swales that make up stand 53. There are some low areas in the stand.
101	6112 - Lowland Aspen	Poletimber Well	6.8	42	51-80	The stand is in good shape. The terrain is hummocky and there is a lot of very wet areas in the stand along with some dry ridges. Hold the stand for 10 years then harvest.
102	6130 - Fir, Aspen, Maple	Poletimber Poor	9.7	79	1-50	The over story ash is gone. There is a lot of ash and fir seedlings and saplings in the understory. The stand has a drainage running through it.
105	6112 - Lowland Aspen	Poletimber Well	31.7	39	51-80	This stand is the dryer part of what used to be stand 57. There are still areas that may be too wet to harvest but much of this stand could be. The harvest would have to be in dry or frozen conditions.
106	4311 - Pine, Aspen Mix	Poletimber Well	13.8	51	81-110	The stand is similar to stand 2 except the white pine has replaced the red pine and the stand. In addition, the white pine does not look to have been planted. Harvest the stand by removing the hardwoods and marking the white pines down to 90 BA. The marking should be done to make the stand loggable.
109	4130 - Aspen	Poletimber Medium	8.2	39	51-80	The stand is a mix of uplands & lowlands. The canopy is dense. There are inclusions of vernal ponds and areas of lowland shrubs.
110	4130 - Aspen	Sapling Well	13.0	10	Immature	The stand was clearcut in March 2008 under sale #73-008-05-01, Police Tower Pine. The harvest was done to regenerate aspen.

Police Tower Pine. The harvest was done to regenerate aspen.
The oak that was < 6" DBH were retained. The stand has regenerated well along Whittemore Road. It becomes less dense in the western portion of the stand.

S t	Gladwin Mgt. Unit			Report 7	Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
111	611 - Lowland Deciduous Forest	Poletimber Medium	7.8	53	1-50	The stand is on the flood plain of Johnson Creek where it joins Mongo Creek. The central portion of the stand looks to be nonforested. The hardwoods are on the slopes and at the foot of the slopes of the flood plain.
113	4130 - Aspen	Sapling Well	30.8	20	Immature	The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. The stand is a mixture of ridges and swales. The swales become more numerous in the eastern portion of the stand.
114	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	3.2	21	Immature	The stand is in a draw. It is very wet and a creek runs through it. There is a lot of blow down. The stand is heavy to birch both white and river.
115	4130 - Aspen	Poletimber Well	29.4	29	1-50	The stand is a mixture of ridges and swales. The swales are more common in the eastern 2/3 of the stand. Some of the swales are lowland shrub types that are overtopped by aspen. The stand was harvested in the sale called Ace's Honor, sale number 73-052-85-01 which was closed in 1988. The southern boundary of the stand is not on the quarter line. The southern 33' strip was sold to a private individual for access in the 90's.
119	6119 - Mixed Lowland Deciduous Forest	Poletimber Poor	3.2	43	1-50	This is a pocket of mature trees that was not harvested when stand 20 was. It was not harvested because it was too wet. The over story ash is dead and coming down. There is some residual maple, fir, and birch. The death of the ash has lowered the crown closure to around 25%. In the open areas, maple, birch and fir is seeding in.
120	4130 - Aspen	Sapling Medium	15.6	20	Immature	This is part of stand 20 that was a little higher and dryer. When it was harvested, the rutting was not bad. The stand was harvested in 1997 in the Kitchen Road West, sale number 73-005-95-01. Part of the NW corner is now sparse from beaver activity. There are some low areas that have thick tag alder
121	4130 - Aspen	Sapling Poor	15.7	11	Immature	This stand was cut and didn't regenerate well. The sale was "Whittemore's Kitchen". The sale number was 73-005-05-01. However, the stand originally was sparse. So, it is regenerating back to what was there before the cut. Beaver are filling up the drainages. The stand overall is barely forested.
128	6112 - Lowland Aspen	Poletimber Poor	2.1	52	1-50	This area appears to have been dug to remove some material. The spoils were put back into the hole as steep ridges. The stand is very hummocky with lots of standing water. It has a fair amount of tag alder in it. The understory and the overstory are a mixture of red maple and paper birch.
129	4130 - Aspen	Sapling Well	9.6	21	Immature	The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01. The stand has regenerated nicely. It is a mixture of aspen and red maple.
130	4130 - Aspen	Sapling Well	17.9	21	Immature	The stand was harvested in 1996 in the Kitchen Road East; sale number 73-010-95-01. The stand is doing well and should be a pole stand in 10 years. The old landing is seeding in with pine.

S t	Gladwin	Mgt. Unit		Report 7	- Forested	Stands Compartment: 142 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
133	4130 - Aspen	Sapling Medium	14.7	8	Immature	The stand is mainly aspen with pockets of jack pine and balsam fir. It was final harvested in the winter of 2008 under the "Whittemore's Kitchen" sale, sale number 73-005-05-01. The crown closure is around 75%. There are a couple of large openings in the stand that are quite wet.
135	4133 - Aspen, Mixed Pine	Sapling Medium	18.2	8	Immature	The stand was final harvested in the winter of 2008 under the "Whittemore's Kitchen" sale, sale number 73-005-05-01. It is about a 50-50 mix of uplands and lowlands. The regeneration is mainly aspen sprouts and white pine that is seeding in from the adjacent stands. The white pine is heaviest in the northern ½ of the stand.
139	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	11.8	86	51-80	The overstory ash is dead and coming down. However, the understory is thick with ash seedlings and saplings in the areas where the crown closure is low. The understory fir and maple is more evenly distributed.
401	4132 - Aspen, Jack Pine	Poletimber Medium	1.3	28	1-50	The stand has filled in with aspen and pine. The aspen is in the central portion of the stand and the pine is along the edges.



Stand	Cover Type	Acres	Managed Site	General Comments:
8	510- Water (OI)	9.1	No	The stand is a beaver pond. The west and north sides are lowland shrubs.
23	330 - Low-Density Trees	9.3		9/23/2016: The stand was clearcut in the early part of the summer of 2016. It is starting to regenerate. The current crown closure is between 15 and 25%. The slash load is heavy. The stand was harvested in the sale: Mongo Aspen, the sale number is 73-006-16-02. The smaller red pine was retained in pockets.
24	310 - Herbaceous Openland	65.4		9/23/2016: The stand was clearcut in the early part of the summer of 2016. It is starting to regenerate. The slash load is heavy. The stand was harvested in the sale: Mongo Aspen, the sale number is 73-006-16-02. There are numerous low pockets in the stand. There are several retention pockets in the stand which includes some of the wetter areas.
25	310 - Herbaceous Openland	7.2		9/23/2016: The stand was clearcut during the summer of 2016. It is just starting to regenerate. The slash load is heavy. The stand was harvested in the sale: Mongo Aspen, the sale number is 73-006-16-02.
26	6229 - Mixed lowland shrub	6.3	No	The stand is a depression in stand 67. The ash has died and it is now tag alder, michigan holly and willow shrubs. There are some scattered maples and white pines especially in the north end of the stand.
43	629 - Mixed non-forested wetland	1.9	No	This stand is a wet depression with some open water. However, about 50% of the stand is cattails.
44	6224 - Treed Bog	2.8	No	The stand is red pine over leather leaf. There are areas in the stand that have no tree cover. There are also other areas that have 50-75% crown closure.
48	629 - Mixed non-forested wetland	3.3	No	This stand is an old beaver flooding. It is no longer ponding water.
50	6220 - Alder/willow	2.1	No	This is a low depression in stand 113 that did not regenerate. It is heavy to tag alder and willow with some mature swamp hardwoods along the east side of the stand. There may have been an increase in the water level because of the beaver activity in the area.
51	6229 - Mixed lowland shrub	2.1	No	The stand is in a depression that drains to the east. The ash in the stand is dead and coming down. Currently the stand has some white pines.
55	500 - Water	5.7	No	The stand is a beaver flooding that has been here since 1998. The pond is still holding water. However, it looks like it may have been abandoned. There are no fresh chews around it and the wood in the dam is starting to break down.
56	629 - Mixed non-forested wetland	9.8	No	The stand is linked to the drainage ditch along Gypsum Road. The north end is heavy to willow. The ground cover changes to marsh grass at the south end. It looks like it was a beaver flooding at one time, but it has not held much water since 2005.
61	622 - Lowland Shrub	47.7	No	The overstory aspen and ash is all but gone. The stand is now mainly Michigan holly, tag alder, and willow shrubs with some white pines, maples and scattered aspens. The crown closure is now less than 15%.



Stand	Cover Type	Acres	Managed Site	General Comments:
71	122 - Road/Parking Lot	13.5	No	This stand is the ROW for the active rail road that runs along the edge and through the compartment
80	320 - Upland Shrub	9.0	No	The stand has lost all the overstory ash and a large percentage of it is now down. It still has some maple, basswood, elm and aspen scattered in the stand. However, because of the high mortality it is now a non-forested stand. The stand is mainly on the alluvial plain of the AuGres River. There are numerous seeps and pockets of low wet ground in the stand.
82	6233 - Wet Meadow	3.7	No	This stand was an old beaver flooding. It has since drained down. Now it is mainly grasses in the flood plain of Mongo Creek.
84	629 - Mixed non-forested wetland	15.8	No	The stand is a mixture of non-forested wetlands. The ash that was in the stand is now dead and it's coming down. There are a few red maples scattered. However, the stand has less than a 15% crown closure. Shrubs are patchy and are made up of mostly willow shrubs and michigan holly. The stand looks to have been the result of several old beaver floodings.
85	622 - Lowland Shrub	12.5	No	The ash in the stand is dead and coming down. There are still some maples but the crown closure is now < 25%. The stand drains through stand 87 and 86 and into Elm Creek.
87	629 - Mixed non-forested wetland	4.3	No	The stand was final harvest in the "Whittemore's Kitchen", sale number 73-005-05-01. It was cut in the winter of 2007. The regeneration is poor and the crown closure is around 20%. Overall, the stand is a non-forested wetlands with some trees. Aspen clones and scattered maple makes up the main components of the stand. The stand is very wet.
90	629 - Mixed non-forested wetland	22.6	No	The stand is on the flood plain of the AuGres River. It was mainly green ash and black ash with some red maple and cottonwood. The stand is low and wet with many wetland plants in it. The ash is now dead and coming down. It is now a non-forested type. The crown closure is now around 10-15%.
93	629 - Mixed non-forested wetland	5.4	No	The stand was final harvested in the winter of 2005/2006. The sale was "Whittemore's Kitchen" sale number, 73-005-05-01. This stand is a drainage that did not regenerate. There are pockets of phragmites and pockets of tag alder and cattails.
97	6220 - Alder/willow	29.0	No	This stand is a broad drain that has some scattered live maples, quaking aspens, and balsam poplars. What ash was in the overstory is dead and coming down, like much of the compartment. Currently the stand is heavy to michigan holly, willow shrubs, and tag alder.
98	629 - Mixed non-forested wetland	29.8	No	The stand is the flood plain of the AuGres River. The ash is all dead. There are a couple of pockets of maple giving a crown closure between 15 and 25%. Much of the dead ash along the river has come down. Therefore, the AuGres river has a lot of direct sunlight at the current time with a lot of woody structure.
100	622 - Lowland Shrub	5.6	No	The stand is low and wet. The ash overstory is dead and coming down. There are still some maple and white pine present but not much. The shrubs are mainly tag alder and Michigan holly.



Stand	Cover Type	Acres	Managed Site	General Comments:
103	320 - Upland Shrub	13.4	No	The ash in the stand is dead and there is not much maple. It is mostly upland herbaceous with some scattered trees and shrubs.
104	3103 - Rubus-Fern	2.1	No	This stand is the north end of stand 66 which was harvested in 2003. However, it did not regenerate with trees after the harvest. Currently it is mainly raspberry with some white pine and blackberry.
108	629 - Mixed non-forested wetland	1.9	No	The stand is the marshy flood plain of Mongo Creek.
112	122 - Road/Parking Lot	14.5	No	This is the Kitchen Road ROW.
116	3103 - Rubus-Fern	1.8	No	This is an area in stand 27 that didn't regenerate. It has some scattered trees. However, the crown closure is less than 15% so it is non -forested.
117	629 - Mixed non-forested wetland	2.6	No	The stand is on the flood plain of the Au Gres River and it is very wet. There is a drainage that also runs through the stand.
118	6220 - Alder/willow	1.8	No	The stand is a shallow Beaver flooding in stand 113. It is heavy to lowland shrubs with some islands of birch in it that are a little dryer.
400	31029 - Grass (OI)	3.1	No	This stand was a well site that did not produce. It is now a G-Type made up of mainly grasses and spotted knapp weed. The spotted knapp weed is at a much lower density then it was 10 years ago.
402	310 - Herbaceous Openland	11.9	No	This stand is a Rail Road Right-of-Way. The rail is along the northwest side and there are 3 power lines along the southeast side.
403	3103 - Rubus-Fern	1.7	No	This stand is the location of the landing that was used to harvest stand 20 and 18.
405	3103 - Rubus-Fern	1.1	No	This stand is the location of the landing that was used to harvest stand 20 and 18.
406	3104 - Degraded	1.3	No	This stand is where the landing was set up to harvest stand 113. The stand is mainly poverty grass and blackberry with some mullins.
407	3301 - Low Density Deciduous Trees	2.5	No	This stand is the location of the landing that was used to harvest stand 3. The stand is mostly open with a couple of aspen clones.